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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,748	04/11/2002	Shlomo Ben-Haim	298858-00110 (228770)	7537

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EXAMINER	
HOLMES, REX R	

ART UNIT	PAPER NUMBER
3762	

NOTIFICATION DATE	DELIVERY MODE
12/23/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipmail@eckertseamans.com

Office Action Summary	Application No.	Applicant(s)	
	09/980,748	BEN-HAIM ET AL.	
	Examiner	Art Unit	
	REX HOLMES	3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 January 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *5,6,8,12,14,34,35,39,44,49,50,52 and 53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *5,6,8,12,14,34,35,39,44,49,50,52 and 53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 5-6, 14, 34, 39, 44 and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Prystowski et al. (U.S. Pat. 4,554,922 hereinafter "Prystowski").

3. Regarding claims 5-6, 14, 34, 39, 44 and 49, Prystowski discloses a system that determines either atrial or ventricular fibrillation (Col. 1, ll. 5-8), applies multiple pulses at a rate greater than 10 Hz (e.g. Col. 2, ll. 57-65) with a power less than 100W (e.g. 2mA signal applied to the heart (60 Ohms) = peak power of 0.24mW), less than 1 joule (15 pulses with a power of 0.24mW lasting 2ms each) and an amplitude less than 50mA (e.g. Col. 2, ll. 57-62). Prystowski further discloses that the device terminates the pulses (e.g. Fig. 6, Col. 5, ll. 19-24; Col. 5, line 61 to Col. 6, line 15) and monitors the electrical signals of the heart indicative of motion (e.g. Col. 5, ll. 24-32). Prystowski further discloses that the device modifies the pulses based on the signal (e.g. Col 6, line 60 to Col. 7, line 12; Col. 5, line 61 to Col. 6, line 15).

4. Regarding claim 6, Prystowski further discloses that the device can apply the stimulation during the refractory period to inhibit propagation of the heart waves (e.g. Col. 3, ll. 25-53; Col. 5, line 61 to Col. 6, line 15).

5. It is noted that Prystowski applies the pulses at one frequency and then terminates the signal by reducing the frequency to zero which is a second frequency.`

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 12 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prystowski et al. (U.S. Pat. 4,554,922 hereinafter “Prystowski”).

9. Prystowski discloses the claimed invention as discussed in detail above. Prystowski further discloses utilizing multiple electrodes and multiple stimulus signals (e.g. Col. 6, ll. 16-45). However, Prystowski fails to explicitly state that the signals that are sent to each electrode are either the same or different. Therefore, It would have been obvious to one having ordinary skill in the art at the time the invention was made

to have modified the system of Prystowski with varying electrical signals for each electrode as it would provide the predictable result of supplying a custom signal for each electrode that would work together in order to inhibit the response and not propagate it.

10. Claims 8, 35 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prystowski in view of Ideker et al. (U.S. Pub. 2002/0123771 hereinafter "Ideker").

11. Prystowski discloses the claimed invention as discussed in detail above, but fails to disclose pacing while applying the defibrillation signal. However, Ideker discloses that it is known in the art to pace the heart while applying defibrillation signals as it lowers the strength of the signal needed to defibrillate (e.g. Paragraph 126). It is further noted that Ideker fails to disclose the frequency of the pacing signal but it is common knowledge in the art that that typical pacing is 1Hz to keep the heart steadily pumping at 60 beats a minute. Therefore, It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the system of Prystowski with the pacing while defibrillating as taught by Ideker to provide the predictable results of lowering the strength of the defibrillation signal needed to defibrillate the heart.

12. Claims 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prystowski in view of Min et al. (U.S. Pat. 5,713,924 hereinafter "Min").

13. Prystowski discloses the claimed invention as discussed in detail above, but fails to disclose applying a fencing while applying the defibrillation signal. However, Min discloses applying a fencing signal to the heart while applying the defibrillation signal in order to lower the energy pulse needed to defibrillate the heart (e.g. Col. 3, ll. 50-54, Fig. 3; Col. 12, line 60 to Col. 13, line 20). Therefore, It would have been obvious to one

having ordinary skill in the art at the time the invention was made to have modified the system of Prystowski with the fencing signals while defibrillating as taught by Min to provide the predictable results of lowering the strength of the defibrillation signal needed to defibrillate the heart.

Response to Arguments

14. Applicant's arguments, see Remarks, filed 1/19/10, with respect to the 35 USC 112 rejections have been fully considered and are persuasive. The 112 rejections of 9/11/09 have been withdrawn.

15. Applicant's arguments filed 1/19/10 regarding the 35 USC 102 and 103 rejections have been fully considered but they are not persuasive. The Applicant argues that Prystowsky fails to teach applying signals to hearts already in fibrillation. It is noted that the claims are written in an open ended comprising format and do not preclude the stimulation of the ventricles before fibrillation as long as the system apply signals to the heart after fibrillation occurs. In this case, Prystowsky teaches a system that determines either atrial or ventricular fibrillation (Col. 1, ll. 5-8), applies multiple pulses at a rate greater than 10 Hz (e.g. Col. 2, ll. 57-65) with a power less than 100W (e.g. 2mA signal applied to the heart (60 Ohms) = peak power of 0.24mW), less than 1 joule (15 pulses with a power of 0.24mW lasting 2ms each) and an amplitude less than 50mA (e.g. Col. 2, ll. 57-62). Prystowski further discloses that the device terminates the pulses (e.g. Fig. 6, Col. 5, ll. 19-24; Col. 5, line 61 to Col. 6, line 15) and monitors the electrical signals of the heart indicative of motion (e.g. Col. 5, ll. 24-32). Prystowski

further discloses that the device modifies the pulses based on the signal (e.g. Col 6, line 60 to Col. 7, line 12; Col. 5, line 61 to Col. 6, line 15).

Conclusion

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to REX HOLMES whose telephone number is (571)272-8827. The examiner can normally be reached on M-F 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Niketa Patel can be reached on (571) 272-4156. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. H./
Examiner, Art Unit 3762
/Niketa I. Patel/

Supervisory Patent Examiner, Art Unit 3762